

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (Currently amended): A surface-coated cutting tool ~~equipped with~~ comprising:

a coating layer on a substrate surface ~~having~~ wherein:

~~said coating layer is formed from~~

an inner layer formed on a substrate; ~~and~~


an outermost layer formed over said inner layer;

wherein said inner layer is formed from a compound formed from a first element and a second element, said first element being at least one element selected from a group consisting of a periodic table group IVa, Va, VIa metal, Al, Si, and B, and said second element being at least one element selected from a group consisting of B, C, N, and O, except, in said inner layer, a film formed solely from B is excluded;

wherein said outermost layer is formed from aluminum nitride or aluminum carbonitride, said outermost layer containing more than 0 and no more than 0.5 atomic percent chlorine.

Claim 2 (Original): A surface-coated cutting tool according to claim 1 wherein said outermost layer further includes oxygen.

Claim 3 (Original): A surface-coated cutting tool according to claim 1 wherein said inner layer includes a film formed from a compound containing Ti.

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Claim 4 (Original): A surface-coated cutting tool according to claim 3 wherein said inner layer includes a film formed from TiCN having a columnar structure.


Claim 5 (Original): A surface-coated cutting tool according to claim 4 wherein said film formed from TiCN has a columnar structure with an aspect ratio of at least 3, where an index of orientation TC(220), TC(311), or TC(422) of a crystal face (220), crystal face (311), and crystal face (422) respectively is a maximum index of orientation.

Claim 6 (Original): A surface-coated cutting tool according to claim 1 wherein said outermost layer is formed with a film thickness that is no more than 1/2 a total film thickness of said inner layer.

Claim 7 (Original): A surface-coated cutting tool according to claim 1 wherein a film hardness of said outermost layer is lower than a hardness of at least one film forming said inner layer.

Claim 8 (Original): A surface-coated cutting tool according to claim 1 wherein a surface roughness of a section of said outermost layer near a ridge line of a cutting edge has an Rmax relative to a 5 micron reference length of no more than 1.3 microns, where roughness is measured by observing a cross-section of said cutting tool.


Claim 9 (Original): A surface-coated cutting tool according to claim 1 wherein said substrate is formed from a WC-based cemented carbide, cermet, high-speed steel, ceramic, a cubic boron nitride sintered body, or a silicon nitride sintered body.

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Claim 10 (Currently amended): A surface-coated cutting tool according to ~~any one of claim 1 through claim 9~~ wherein said surface-coated cutting tool is a throw-away insert, a drill, or an end mill.

Claim 11 (Currently amended): A surface-coated cutting tool according to ~~any one of claim 1 through claim 9~~ wherein: said surface-coated cutting tool is a throw-away insert; and said outermost layer has a film thickness of at least 0.03 microns and no more than 10 microns, and said coating layer has a total film thickness of at least 0.1 microns and no more than 30 microns.

Claim 12 (Currently amended): A surface-coated cutting tool according to ~~any one of claim 1 through claim 9~~ wherein: said surface-coated cutting tool is a drill or an end mill; and said outermost layer has a film thickness of at least 0.03 microns and no more than 8 microns, and said coating layer has a total film thickness of at least 0.1 microns and no more than 24 microns.

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